DLyte Desktop Dental®



Powered by DryLyte® TECHNOLOGY

All the features from a DLyte machine, now available in an ultra-compact system

The new ***DLyte Desktop Dental*** is an ultra-compact system that gathers all the advantages of any DLyte system currently available on the market. This new equipment allows any company (no matter what size), to access the disruptive dry electropolishing technology. It is accessible to small laboratories and workshops.

From grinding to mirror finishing, this new set-up offers a new easy way to process any casting, sintering or milling metal parts.

Fast & Accurate · Accessible · Clean & Safe

DLyte Desktop Dental®

The Revolution in Metal Surface Finishing

This product is protected by one or more of the following patents and patent applications:
Patents https://www.gpainnova.com/patents

A brand of
GPAINNOVA



Suitable for CoCr, Titanium and Stainless Steel

DLyte Dektop Equipment available in two versions:

DLYTE DESKTOP DENTAL

Aimed at the dental sector and ready for the treatment of CoCr pieces.

DLYTE DESKTOP PRO

Suitable for the treatment of CoCr , Titanium and Stainless Steel.





CAPACITY		
	Desktop Dental 1 RPD	Desktop PRO 1 piece
MATERIALS		
	Desktop Dental	Desktop PRO
Cobalt Chrome	✓	✓
Stainless Steel	✗	✓
Titanium	✗	✓
INITIAL KIT		
	Desktop Dental	Desktop PRO
Holder Finger	✓	✓
Holder Bars With Analogs	(not included)	✓
Spring Holder	(not included)	(not included)

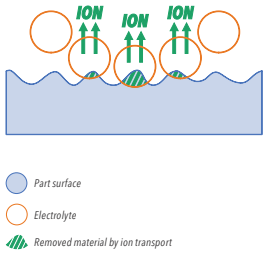
How it Works



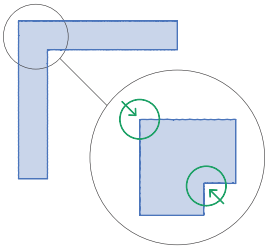
TECHNOLOGY INTRODUCTION

DryLyte® TECHNOLOGY

Powered by *DryLyte Technology, DLyte Desktop Dental* works by combining the electrical flow created by the **high precision** rectifier with the movement of the pieces through the electropolishing media. This results in an ion exchange, removing material only from the peaks of roughness. The process does not round edges and can access internal corners that are not easily accessed mechanically.



The process removes material only from the peaks of the roughness.



The process does not round edges and can penetrate the internal cavities of the piece.



Macro sequence of a DryLyte Technology Polishing Process.

Fast & Accurate

DLyte Desktop Dental combines the exceptional performance of DryLyte technology with the ease of a plug-and-play system, allowing a higher quality surface finishing than manual polishing processes. The advanced dry electropolishing technology ensures minimal material removal, geometry preservation and a brilliant shine.

Consistency & Durability

Our automated surface finishing ensures uniformity between batches and parts so that every part meets your specifications.

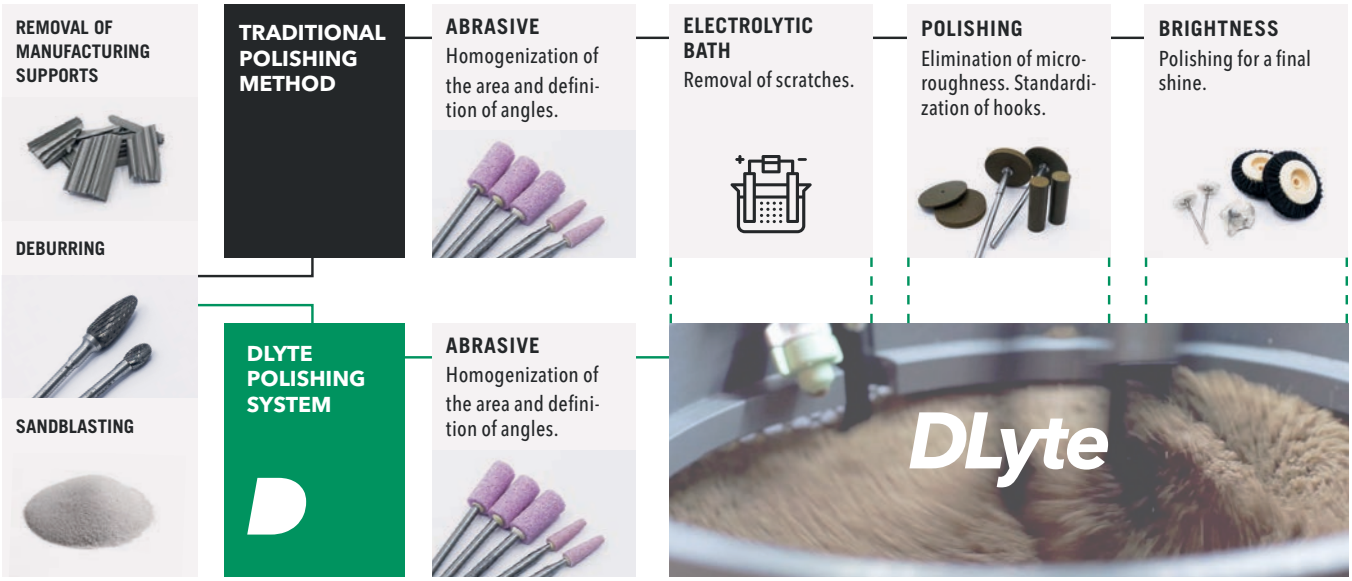




Reduce the Number of Steps in Your Polishing Process

With DLyte Desktop Dental metal frameworks are homogenously finished, **up to 10 times faster than any other equipment***. DLyte increases productivity and allows any technician to focus on high-value activities while the equipment is finishing the parts.

TRADITIONAL POLISHING PROCESS VS DLYTE



Accessible to All

With a wide range of materials, easy-to-use platform, and affordability, DLyte Desktop Dental offers high-quality surface finishing that every laboratory can access.

Plug & Play

In a matter of minutes, users can begin surface finishing metal parts from the comfort of their desktop. Pre-set settings and opt-in advanced controls allow every technician to finish high-quality metal parts at the press of a button.

The DLyte Desktop Dental does not require special installation. It operates with a standard household electrical plug.



Quick Coupling and Releasing of the Holder

The new and convenient holder fixation system with easy pressure and automatic locking system reduces the loading and unloading times.



Advanced and Intuitive Interface

Any professional will learn how to use DLyte Desktop Dental easily, without prior knowledge.



Affordable

DLyte Desktop Dental allows excellent quality automation, and offers unrivaled utility at a fraction of the cost per piece of any other surface finishing method. With DLyte Desktop, technicians can automate surface finishing with high quality, speed, and affordability.

This ultra-compact machine offers high-finishing, accurate, and affordable results. The new Dlyte Desktop Dental offers a state-of-the-art solution for all kinds of dental laboratories. Aditionally, maintenance and consumables provide an unbeaten cost per piece.



TECHNICAL SPECIFICATIONS

Capacity (per cycle)	*2 RPD, 4 Crowns, 2 Bars*
Machine dimensions	*450 x 521 X 471 mm*
Machine weight	*43kg*
Power	*1.7 kW*
Voltage	*230 V*

Ultra-Compact & Silent

The equipment boasts the latest technology and it fits into a tiny box. It is extremely space-saving as it can be operated on top of a 450mm x 521mm table. When space is limited DLyte Desktop Dental brings high output in a very small case. The new mechanical design ensures an exceptionally smooth and silent operation.



Clean & Safe

The automation of surface finishing with DLyte Desktop Dental protects technicians from exposure to the **chemical agents at work. The consumables used are safe and clean,** without hazards of chemical liquid waste or dust during the process.



Simple Electrolyte Handling and Storage

The use of a solid electrolyte guarantees an easy, quick and safe electrolyte media loading and unloading. This process with our 3L electrolyte container can be completed in less than a minute.

When the machine is not being used, the electrolyte should be taken out and stored. The loading and unloading process makes it easy to keep your machine operating at peak performance.

Easy Maintenance

DLyte Desktop Dental has been designed with high-quality components outstanding design guaranteeing the lowest possible maintenance cost.

Our new removable electrical box allows for easy maintenance that can be completed in less than an hour.



How it Works

STEP 1
The parts are clamped onto the holder



STEP 2
The holder is introduced into the machine



STEP 3
The program is selected



STEP 4
Surface finishing treatment is performed





Before DLyte



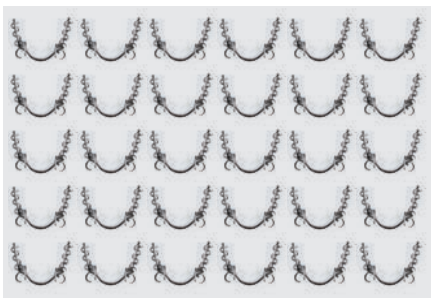
After DLyte

Impact on Your Business



The dust emitted during manual polishing is dangerous for health.





LOWER COSTS

The treatment does not require manual processing, reducing labor costs and eliminating the need to rework parts and the production of defective parts.

TIME SAVING

DLyte is an automatic one-step process which reduces the time and complexity of the current multi-step processes.

CONTROLLED PRODUCTION

DLyte offers a unique solution to meet the needs of the dental industry, with traceable and predictable results, according to polishing needs, production quantities, and/or piece dimensions.

REDUCE COSTS BY UP TO 80% | **MAKE YOUR PRODUCTION MORE FLEXIBLE** | **STANDARDIZE YOUR PRODUCT**

Holding and Fixing

DLyte Desktop's standard package includes one holder finger, to hold one single piece.



Thanks to the additional spring holder, you will be able to hold multiple small pieces, taking advantage of their through holes. Please contact our customization service to find the solution that meets your needs.

Lower costs

Although technicians can finish each part by hand if they want to, this step is not necessary, which leads to significant savings in the medium and long term.



The dust emitted during manual polishing is dangerous for health.

Time saving

DLyte is an automatic process which reduces the complexity of the current multi-step processes. The entire process is completed in one step.



Controlled workflows

DLyte offers a unique solution to meet the needs of the dental industry, with traceable and predictable results, according to polishing needs, production quantities, and/or piece dimensions.



Benefits of the Technology

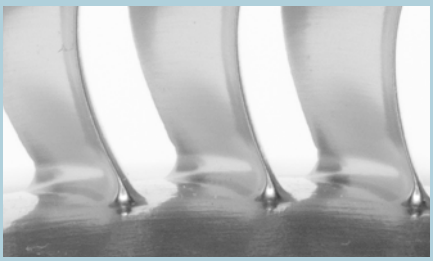
DryLyte® TECHNOLOGY



1 Achieves **homogeneous** results across the surface and eliminates micro-scratches. The system works efficiently at micro and macroscopic levels.



2 **Geometry preservation.** DLyte maintains geometry preservation. Our process respects the tolerances and preserves the initial shape, even the cutting edges. The edges do not become rounded as there is no abrasion of the surface.



3 **Best in class surface roughness** (Ra under 0,01 micrometers).



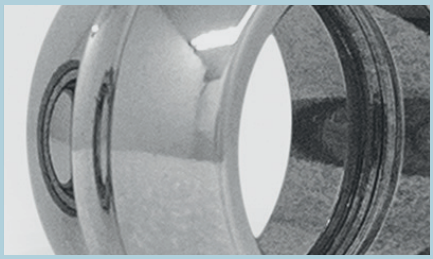
4 **Repeatability and homogeneity guaranteed.** The DLyte process guarantees consistent results between batches within the electrolyte media lifespan. There is no wear as it would typically occur with abrasive particles.



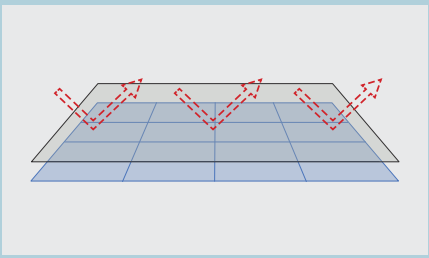
5 It is up to **10x faster** than other current processes. It can replace multiple process steps at a **competitive cost** per part.



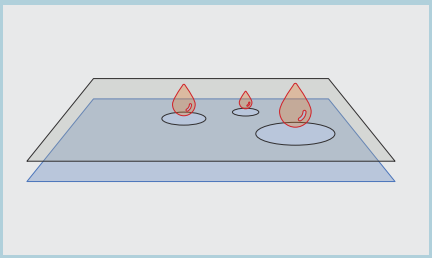
6 It has proven **biocompatibility** and offers **clean, non-hazardous** and easy waste management. Alternative abrasive processes lead to extremely dusty and noisy environments.



7 The Dlyte process enhances negative surface skewness (rsk) which increases the surface bearing contact area (allowing uniform lubricant film distribution) **improving the bearing ratio and reducing the friction** between the pieces.



8 This process does not generate grinding texture patterns, **improving wear and fracture resistance, and improving fatigue resistance.** All surfaces are isotropic.



9 DLyte is the only system able to remove roughness and **improve the corrosion resistance** of the metal pieces while at the same time reducing the number of processes required in the manufacturing process.

Powered by DryLyte® Technology

The patented DryLyte Technology, electrochemical polishing which uses active solid particles, is protected by patents owned by DryLyte S.L. GPAINNOVA owns the exclusive right to sell the DryLyte Technology, and only companies authorized by GPAINNOVA have the right to utilize or distribute the equipment and consumables using the DryLyte Technology.

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Founded in Barcelona in 2013 and settled in Sunrise (Florida, USA), Hong Kong and Shenzhen (Mainland China), GPAINNOVA specializes in surface finishing solutions for metal and alloy parts through DLyte. The group designs, manufactures, and markets advanced surface finishing machinery, accessories, and consumables based on their patented dry electropolishing technology, DryLyte.

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